

## Teaching Times-Tables

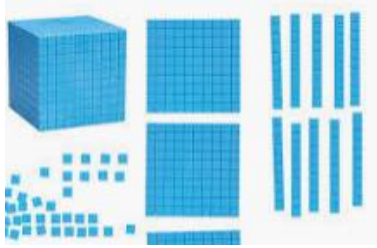


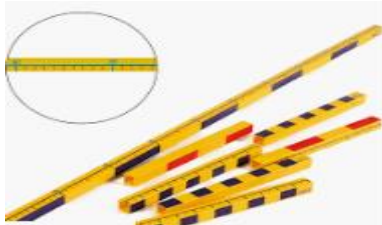

Times Table	Patterns	Suggested activities/teaching ideas
All	<p><a href="#">How to Teach Maths: Guides for Parents - Twinkl Homework Help</a></p> <p><a href="#">Connect-4-times-tables.pdf</a></p> <p><a href="#">How to Teach Times Tables So Pupils Learn Instant Recall From KS1 To KS2 (thirdspacelearning.com)</a></p> <p><a href="#">Download   Teaching Resources (tes.com)</a></p> <p><a href="#">How To Teach Multiplication Tables 7 Ways - Top Notch Teaching</a></p> <p><a href="#">PX_MathsContent_BK_TimesTablesInSchool_01_CH.indd (oxfordowl.co.uk)</a></p> <ul style="list-style-type: none"> <li>• Dice- Roll 2 dice and at speed, multiply the 2 sides together</li> <li>• Dominoes- Multiply each side of the domino together</li> </ul>	
2s	<ul style="list-style-type: none"> <li>• All multiples of 2 have a pattern of 2, 4, 6, 8, or 0 in the ones place.</li> <li>• When multiplying ANY number by 2, the result is EVEN. When you multiply an odd number by 2, the "leftover" partner in each number will be able to partner up together. For example, the 7th piece in the number 7 can partner up with the 7th piece of the other 7 when 7 is doubled/multiplied by 2.</li> <li>• When looking at numbers 1-10, 11-20, 21-30, etc. even numbers/even columns alternate with odd numbers/odd columns.</li> <li>• There are 5 even numbers and 5 odd numbers in each range of 10 numbers (which is <math>\frac{1}{2}</math> or 50/50).</li> <li>• Even if the tens place or hundreds place is odd, a number can be even.</li> <li>• In an even number, everyone has a partner where as with an odd number, 1 number will not have a partner.</li> </ul>	<p><a href="#">The 2 times table - BBC Bitesize</a></p> <p><a href="https://youtu.be/WRf-YTU2wIY">https://youtu.be/WRf-YTU2wIY</a></p>
3s	<ul style="list-style-type: none"> <li>• Multiples of 3 have a pattern of 3, 6, 9, 2, 5, 8, 1, 4, 7, 0 in the ones place.</li> <li>• Every other multiple of 3 is even.</li> <li>• The digits in multiples of 3 add up to a multiple of 3 (<math>36 = 3 + 6</math>, <math>111 = 1 + 1 + 1</math>, etc.)</li> </ul>	<p><a href="https://youtu.be/jJG4ZgJTOAs">https://youtu.be/jJG4ZgJTOAs</a></p> <p><a href="#">KS2 Maths: The 3 Times Table - BBC Teach</a></p>

	<ul style="list-style-type: none"> <li>All EVEN multiples of 3 are also a multiple of 6 (the even multiples of 3 are the 6 "count by's")</li> </ul>	
4s	<ul style="list-style-type: none"> <li>Multiples of 4 have a pattern of 4, 8, 2, 6, 0 in the ones place.</li> <li>Add 20 to any multiple of 4 and you have another multiple of 4 (follow the columns on a 120's chart to see this in action!).</li> <li>All multiples of 4 are 4 away from each other.</li> <li>Each range of 10 alternates with 2 multiples of 4, 3 multiples of 4. (1-10 contains 2 multiples of 4; 11-20 contains 3 multiples of 4.)</li> </ul>	<a href="https://youtu.be/uXseFbjgGI8">https://youtu.be/uXseFbjgGI8</a> <a href="#">First: 4 Times Table - BBC Teach</a>
5s	<ul style="list-style-type: none"> <li>Multiples of 5 have a pattern of 5, 0 in the ones place.</li> <li>Every other multiple of 5 is even; every other multiple of 5 is odd.</li> <li>Every range of 10 contains two multiples of 5.</li> <li>Every other multiple of 5 is halfway between a 10.</li> </ul>	<a href="https://youtu.be/A8cCyQTkRgI">https://youtu.be/A8cCyQTkRgI</a> <a href="#">KS1 Maths: The 5 Times Table - BBC Teach</a>
6s	<ul style="list-style-type: none"> <li>Multiples of 6 have a pattern of 6, 2, 8, 4, 0 in the ones place.</li> <li>When a multiple of 2 and 3 overlap, you get a multiple of 6.</li> <li>All multiples of 6 are even numbers.</li> <li>All multiples of 6 are 6 away from each other.</li> <li>Multiples of 6 are every other multiple of 3.</li> </ul>	<a href="https://youtu.be/8bbhYadGSPw">https://youtu.be/8bbhYadGSPw</a> <a href="#">KS2 Maths: The 6 Times Table with Fred the Red - BBC Teach</a>
7s	<ul style="list-style-type: none"> <li>Multiples of 7 have a pattern of 7, 4, 1, 8, 5, 2, 9, 6, 3, 0 in the ones place. Besides multiples of 9, <b>7's have the greatest variety of numbers represented in the ones place—hitting every digit from 0 to 9 along the way!</b> —&gt; Have students continue the pattern beyond 119 to see how long it goes.</li> <li>The ones place is 3 less with each increasing multiple (7, 4, 1 (or 11), 8, 5, 2 (or 12), 9, etc).</li> </ul>	<a href="https://youtu.be/Fwg9Zyz7QVo">https://youtu.be/Fwg9Zyz7QVo</a> <a href="#">KS2 Maths: The 7 Times Table with Moonbeam - BBC Teach</a>
8s	<ul style="list-style-type: none"> <li>Multiples of 8 have a pattern of 8, 6, 4, 2, 0 in the ones place.</li> <li>All multiples of 8 are even.</li> <li>All multiples of 8 are multiples of 2 and 4.</li> <li>To multiply a number by 8, you can <b>double-double-double</b> the number. (Example: <math>4 \times 8 \rightarrow 4</math> doubled</li> </ul>	<a href="https://youtu.be/KqqufPdi7j0">https://youtu.be/KqqufPdi7j0</a> <a href="#">KS2 Maths: The 8 Times Table with Filbert Fox - BBC Teach</a>

	<p>= 8, 8 doubled = 16, 16 doubled = 32. <math>4 \times 8 = 32</math>)</p> <ul style="list-style-type: none"> <li>8's only contain one multiple in each 10, except when the ones place is a zero like in 40 and 80. These tens have two multiples of 8.</li> </ul>	
9s	<ul style="list-style-type: none"> <li>Multiples of 9 have a pattern of 9, 8, 7, 6, 5, 4, 3, 2, 1, 0 in the ones place.</li> <li>All multiples of 9 are one less than 10 away from each other. (So, we can add 10, subtract 1 to find the next multiple of 9.)</li> <li>A multiple of 9 can be even or odd. 9 is odd, but the result of <math>9 \times 2</math> (or <math>9 + 9</math>) is even.</li> <li>Multiples of 9 alternate—odd, even, odd, even, etc.</li> <li>A multiple of 9 must also be a multiple of three because 9 is made up of <math>3 \times 3</math>.</li> <li>The digits in a multiple of 9 add up to a multiple of 9 (9, 18, 27, etc) . The digits of every multiple of 9 up to 90 add up to 9.</li> <li>As the tens digit increases by 1, the ones digit decreases by 1.</li> </ul>	<p><a href="https://youtu.be/WiKqUNzuGXw">https://youtu.be/WiKqUNzuGXw</a></p> <p><a href="#">KS2 Maths: The 9 Times Table - BBC Teach</a></p>
10s	<ul style="list-style-type: none"> <li>All multiples of 10 have a zero in the ones place</li> <li>When multiplying by a 10, the other factor that was multiplied moves to the left one space (or one place value space to the left).</li> <li>All multiples of 10 are also multiples of 2 and 5.</li> <li>Multiples of 10 are always even because 10 is even (therefore, many groups of 10 will remain even.) This also means that multiples of 10 are divisible by 2.</li> <li>All multiples of 10 are also divisible by 5.</li> </ul>	<p><a href="#">The 10 times table - BBC Bitesize</a></p> <p><a href="#">10 Times Table Worksheets &amp; Activities.   Teaching Resources (tes.com)</a></p> <p><a href="#">10 Times Tables Digital Game   Teaching Resources (tes.com)</a></p>
11s	<ul style="list-style-type: none"> <li>The ones place and the tens place for all multiples of 11 under 100 are the same.</li> <li>The ones place increases by 1 each time and then starts again after 0.</li> <li>Each multiple is one less away from the next 10. 11 is 9 away from 20, 22 is 8 away from 30, 33 is 7 away from 40, and so on.</li> <li>After 110, the next multiple is 121 and the pattern starts again.</li> </ul>	<p><a href="https://youtu.be/crB8gK728gk">https://youtu.be/crB8gK728gk</a></p> <p><a href="#">KS2 Maths: The 11 Times Table - BBC Teach</a></p>
12s	<ul style="list-style-type: none"> <li>All multiples of 12 are even</li> <li>All multiples of 12 are multiples of 2, 3, 4, and 6</li> <li>In the ones place, the pattern 2, 4, 6, 8, 0 repeats. This is because when you are</li> </ul>	<p><a href="https://youtu.be/G7P6de6PQCs">https://youtu.be/G7P6de6PQCs</a></p> <p><a href="#">KS2 Maths: The 12 Times Table with Chirpy Cockerel - BBC Teach</a></p>

	<p>adding 12, the tens increase each time, and the ones place counts by 2's</p> <ul style="list-style-type: none"> <li>• When counting by 12's, no multiples are in the 50's or the 110's</li> </ul>	
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Concrete resources to support learning

Resource	How it can support
 <p>Dienes</p>	<ul style="list-style-type: none"> <li>• Building numbers to spot patterns</li> <li>• Repeated addition</li> <li>• 10 times tables/counting in 10s</li> </ul>
 <p>Bead string</p>	<ul style="list-style-type: none"> <li>• Building numbers to spot patterns</li> <li>• Repeated addition</li> <li>• 10 times tables/counting in 10s</li> <li>• Making connections between times tables (e.g when teaching the 4 times tables, practise the 2s first by counting 2 beads at a time on the string, then support children in making the connection that they double the amount of beads each time)</li> </ul>
 <p>Counters</p>	<ul style="list-style-type: none"> <li>• Making groups of numbers (e.g 6 piles of 2 for 6 x 2)</li> <li>• Pattern spotting</li> </ul>
 <p>Counting stick</p>	<ul style="list-style-type: none"> <li>• Breaking up products into factors-represent a factor on each interval</li> </ul>
 <p>Bar model</p>	<ul style="list-style-type: none"> <li>• Spotting patterns and making connections (e.g noticing which numbers are doubles and halves of each other)</li> </ul>



Numicon

- Counting in multiples (e.g when learning the five times tables, the children can pick up the necessary number of five-pieces and use them to help them count in jumps of five)



Place value counters

- Building times tables to spot patterns (e.g when practising the 11s, children know to add 1 ten counter and 1 ones counter each time. They can then calculate mentally and know to add 1 ten to the 10s column and 1 one to the ones column)